

## Internal Memo

Office of Materials  
Mailstop 645  
1400 Gervais Avenue  
Maplewood, MN 55109

**DATE:** June 22<sup>nd</sup>, 2020

**TO:** Derek Fredrickson, Project Manager  
District 1

**FROM:** Hossana Teklyes, Assistant Foundations Engineer  
Geotechnical Engineering Section  
Foundations Unit

**CONCUR:** Rich Lamb, Foundations Design Build Engineer  
Geotechnical Engineering Section  
Foundations Unit

**SUBJECT:** S.P.6918-95 (District 1)  
TH 53 HTCB (From 0.23 Mi. N CSAH 132 to 0.36 Mi. N. Cuyuna Dr.)  
Subsurface Investigation & Soils Report

---

### Project Description

This report provides a summary of the subsurface investigation and description of the soils that may be encountered when installing the anchors for the proposed cable median barrier system.

### Field Investigation

Twelve Auger Borings were taken in May and July of 2016 by District 1. The Auger borings were taken at designated termination points(anchors) of the guardrail. The attached map shows the location of the Auger Borings. A copy of the Auger Borings are included with this report.

### Auger Borings

The Auger Borings were interpreted for a general soil behavior type and broken into significant soil layers by depth.

An Equal Opportunity Employer



S.P. 6918-95, TH53 HTCB  
Subsurface Investigation & Soil Description  
June 22<sup>nd</sup>, 2020

Please see the attached Auger Borings for a more detailed description of the soils.

Attachments:

Google Earth Map of HTCB (Plan 1-4)

Auger Borings B01– B12

cc: B. Skow

A. Thorson

B. E. Welch

File

An Equal Opportunity Employer






# SP6918-95 (TH53)

HTCB

## Legend

 Auger Borings

B03 3-End Anchor - RP 60+00.37

2-End Anchor - RP 60+00.29

B02

Fayal Pond

6722

B01 1-End Anchor - RP 59+00.74

B01






SP6918-95 (TH53)

HTCB

Legend

 Auger Borings

5-End Anchor - RP 60+00.84

B05

4-End Anchor - RP 60+00.81

B04

Her Tick Ave

Eric Park Blvd






# SP6918-95 (TH53)

HTCB

**Legend**

-  Auger Borings



9-End Anchor - RP 62+00.04

B09

8-End Anchor - RP 62+00.00

B08

53

White Cedar Dr

302

7-End Anchor - RP 61+00.56

B07

6-End Anchor - RP 61+00.52

B06

Park Ave

Industrial Park






**SP6918-95 (US53)**

HTCB

**Legend**

 Auger Borings

B12-End Anchor - RP 62+01.18

B11-End Anchor - RP 62+00.50

B10-End Anchor - RP 62+00.45

Google Earth

© 2020 Google

1000 ft







# Mn/DOT Boring Log Report

---

**Project Number** 6918-95      **TH 53**      **St. Louis County**

---

**Borehole** b200306      **Sta.** B01      **Off.** -15.5      **Chain Name** a  
**Driller** jb ml mg      **Unit #** 200536      **Water Depth**      **Refusal Depth**  
**Date Drilled** 5/27/2020      **X:** 482987.4050      **Y:** 174667.2860      **ELEV:** 1452.8  
**Borehole Comments** , Loc=Median , LaneDir=DEC  
Top - Bottom : Description  
0.00 - 4.00 : SiC Vf pl brn moist  
4.00 - 15.00 : CL Vf pl brn moist

---

**Borehole** b200307      **Sta.** B02      **Off.** -21.0      **Chain Name** a  
**Driller** jb ml mg      **Unit #** 200536      **Water Depth**      **Refusal Depth** 3.10  
**Date Drilled** 5/27/2020      **X:** 482500.2040      **Y:** 176916.7050      **ELEV:** 1465.7  
**Borehole Comments** , Loc=Median , LaneDir=DEC  
Top - Bottom : Description  
0.00 - 2.00 : CL Vf pl brn moist  
2.00 - 3.00 : SiL F pl brn moist  
3.00 - 3.10 : rock refusal possible shot rock

---

**Borehole** b200308      **Sta.** B03      **Off.** -16.0      **Chain Name** a  
**Driller** jb ml mg      **Unit #** 200536      **Water Depth**      **Refusal Depth** 4.60  
**Date Drilled** 5/27/2020      **X:** 482344.2750      **Y:** 177284.1950      **ELEV:** 1445.1  
**Borehole Comments** , Loc=Median , LaneDir=DEC  
Top - Bottom : Description  
0.00 - 4.50 : SiL Vf pl brn moist  
4.50 - 4.60 : rock refusal possible shot rock

---

**Borehole** b200309      **Sta.** B04      **Off.** -5.5      **Chain Name** a  
**Driller** jb ml mg      **Unit #** 200536      **Water Depth**      **Refusal Depth** 8.10  
**Date Drilled** 5/27/2020      **X:** 481453.5950      **Y:** 179445.1050      **ELEV:** 1481.7  
**Borehole Comments** , Loc=Median , LaneDir=INC  
Top - Bottom : Description  
0.00 - 4.50 : SL Cr pl gry wet  
4.50 - 5.00 : SiCL F pl brn wet  
5.00 - 7.00 : SiCL F pl brn sat  
7.00 - 8.00 : CL Vf pl brn sat  
8.00 - 8.10 : rock refusal possible shot rock

---

**Borehole** b200310      **Sta.** B05      **Off.** 33.5      **Chain Name** a  
**Driller** jb ml mg mt      **Unit #** 200536      **Water Depth**      **Refusal Depth** 3.10  
**Date Drilled** 6/1/2020      **X:** 481400.9950      **Y:** 179570.3350      **ELEV:** 1502.1  
**Borehole Comments** , Loc=Median , LaneDir=DEC  
Top - Bottom : Description  
0.00 - 3.00 : LS&G Cr nonpl brn wet layer of rubber matting  
3.00 - 3.10 : rock refusal

---



**Borehole** b200311                      **Sta.** B06                                      **Off.** 32.0                      **Chain Name** a  
**Driller** jb ml mg mt                      **Unit #** 200536                      **Water Depth**                      **Refusal Depth**  
**Date Drilled** 6/1/2020                      **X:** 480153.8360                      **Y:** 183007.4930                      **ELEV:** 1526.9  
**Borehole Comments** , Loc=Median , LaneDir=INC

Top - Bottom : Description

0.00 - 3.00 : SL Cr slpl brn moist  
3.00 - 3.50 : SiCL F pl brn stiff damp  
3.50 - 10.00 : SiCL F pl ltbrn stiff damp

**Borehole** b200312                      **Sta.** B07                                      **Off.** 26.5                      **Chain Name** a  
**Driller** jb ml mg mt                      **Unit #** 200536                      **Water Depth**                      **Refusal Depth**  
**Date Drilled** 6/1/2020                      **X:** 480148.3260                      **Y:** 183249.4320                      **ELEV:** 1522.6  
**Borehole Comments** , Loc=Median , LaneDir=INC

Top - Bottom : Description

0.00 - 2.00 : SCL Cr pl brn moist  
2.00 - 6.00 : CL Cr pl brn firm damp

**Borehole** b200313                      **Sta.** B08                                      **Off.** 26.0                      **Chain Name** a  
**Driller** jb ml mg mt                      **Unit #** 200536                      **Water Depth**                      **Refusal Depth** 5.10  
**Date Drilled** 6/1/2020                      **X:** 480010.2190                      **Y:** 185491.8670                      **ELEV:** 1547.8  
**Borehole Comments** , Loc=Median , LaneDir=DEC

Top - Bottom : Description

0.00 - 1.00 : SCL Cr pl brn moist  
1.00 - 3.00 : SiCL Cr pl ltbrn stiff damp  
3.00 - 5.00 : L F slpl gry-grn damp  
5.00 - 5.10 : rock refusal

**Borehole** b200342                      **Sta.** B09                                      **Off.** -30.0                      **Chain Name** a  
**Driller** ml mg                      **Unit #** 200536                      **Water Depth**                      **Refusal Depth** 5.51  
**Date Drilled** 6/8/2020                      **X:** 480011.9300                      **Y:** 185706.2050                      **ELEV:** 1537.5  
**Borehole Comments** , Loc=Median , LaneDir=INC

Top - Bottom : Description

0.00 - 5.50 : SiL F slpl ltbrn damp after 10 minutes ground became saturated refusal possible shot rocks

**Borehole** b200343                      **Sta.** B10                                      **Off.** -29.5                      **Chain Name** a  
**Driller** ml mg                      **Unit #** 200536                      **Water Depth**                      **Refusal Depth** 10.10  
**Date Drilled** 6/8/2020                      **X:** 480429.5060                      **Y:** 187821.8270                      **ELEV:** 1575.4  
**Borehole Comments** , Loc=Median , LaneDir=INC

Top - Bottom : Description

0.00 - 8.00 : SL F slpl ltbrn damp  
8.00 - 10.00 : SL Cr slpl ltbrn wet refusal at 10.0 ft

**Borehole** b200344                      **Sta.** B11                                      **Off.** -28.5                      **Chain Name** a  
**Driller** ml mg                      **Unit #** 200536                      **Water Depth**                      **Refusal Depth** 2.51  
**Date Drilled** 6/8/2020                      **X:** 480419.9980                      **Y:** 187968.9190                      **ELEV:** 1580.1  
**Borehole Comments** , Loc=Median , LaneDir=INC

Top - Bottom : Description

0.00 - 1.00 : SL F pl ltbrn damp  
1.00 - 2.50 : SL Cr slpl ltbrn wet refusal possible shot rocks



**Borehole** b200345                      **Sta.** B12                      **Off.** -32.0                      **Chain Name** a  
**Driller** ml mg                      **Unit #** 200536                      **Water Depth**                      **Refusal Depth**  
**Date Drilled** 6/8/2020                      **X:** 481993.1620                      **Y:** 191012.1990                      **ELEV:** 1515.1

**Borehole Comments** , Loc=Median , LaneDir=INC

Top - Bottom : Description

0.00 - 7.00 : LS Cr nonpl brn moist

7.00 - 14.90 : SiL F slpl gry-grn moist after 10 minutes ground became saturated from 5 to 14.9 ft